WHAT IS CLAIMED IS:

1. A method in a wireless communication device for correcting a frequency error of a signal, the method comprising:

receiving a signal;

correlating the received signal with a plurality of offset prestored data sets;

generating at a predetermined data rate interval a plurality of signal correlations, each of the plurality of correlations correlated to each of the plurality of offset prestored data sets; and

computing a frequency error estimate based upon the plurality of signal correlations.

2. The method of claim 1, wherein correlating the received signal with a plurality of offset prestored data sets further comprises:

generating a plurality of frequency offsets for a prestored data; and

generating the plurality of offset prestored data sets based upon the plurality of frequency offsets.

3. The method of claim 2, wherein computing a frequency error estimate based upon the plurality of signal correlations further comprises:

computing signal magnitude information for each of the plurality of signal correlations;

sampling the signal magnitude information from each of the plurality of signal correlations at a predetermined time;

computing a frequency error modulation representation of the received signal;

curve-fitting the computed frequency error modulation representation to the sampled signal magnitude information; and

computing the frequency error estimate based upon the curve-fitting.

4. The method of claim 1, wherein correlating the received signal with the plurality of offset prestored data sets coherently includes synchronizing the received signal with the prestored data at the predetermined data rate interval.

5. The method of claim 1, wherein the plurality of signal correlations are a plurality of in-phase and quadrature correlations.

6. The method of claim 1, wherein:

the wireless communication device is a global positioning system receiver, and

the plurality signal correlations are a plurality of in-phase and quadrature correlations.

7. The method of claim 3, further comprising:

determining whether the frequency error estimate satisfies a predetermined condition;

if the frequency error estimate satisfies the predetermined condition:

further correlating the received signal with a second plurality of offset prestored data sets;

further generating at the predetermined data rate interval a second plurality of signal correlations for the second plurality of offset prestored data sets; and

computing a second frequency error estimate based upon the second plurality of offset prestored data sets.

8. The method of claim 7, wherein further correlating the received signal with a second plurality of offset prestored data sets further comprises:

further generating a second plurality of frequency offsets based upon the frequency error estimate for the prestored data; and

further generating a second plurality of offset prestored data.

9. The method of claim 8, wherein computing a second frequency error estimate based upon the second plurality of offset prestored data sets further comprises:

further computing second signal magnitude information for each of the second plurality of signal correlations;

further sampling the second signal magnitude information from each of the second plurality of signal correlations at the predetermined time;

further computing a second frequency error modulation representation of the received signal;

curve-fitting the computed second frequency error modulation representation to the sampled second signal magnitude information; and

computing a second frequency error estimate based upon the curve-fitting.

10. The method of claim 7, wherein determining whether the frequency error estimate satisfies the predetermined condition by:

comparing the frequency error estimate with a predetermined allowed frequency error; and

determining the frequency error estimate satisfies the predetermined condition if the frequency error estimate is less than the predetermined allowed frequency error.

11. The method of claim 3, further comprising:

re-sampling the signal magnitude information from each of the plurality of signal correlations at a second predetermined time;

curve-fitting the computed frequency error modulation representation to the re-sampled signal magnitude information; and

re-computing a frequency error estimate based upon the curve-fitting of the computed frequency error modulation representation to the sampled signal magnitude information and to the re-sampled signal magnitude information.

12. The method of claim 3, further comprising:

segmenting time-wise each of the plurality of signal correlations into a predetermined number of signal correlation time-segments;

re-sampling the signal magnitude information from each signal correlation time-segment of the plurality of signal correlations;

generating an average signal magnitude for each frequency offset based upon the re-sampled signal magnitude information for the frequency offset; and

curve-fitting the computed frequency error modulation representation to the averaged signal magnitude information.

13. The method of claim 12, further comprising:

aligning each signal correlation time-segment with a corresponding time segment of the prestored data.

14. A global positioning system receiver configured to correct a frequency error of a received signal that includes a fifty-bits-per-second navigation data, the global positioning system receiver having a prestored replica data of a pseudo-random code in memory, the global positioning system receiver comprising:

an antenna configured to receive a signal;

a correlator coupled to the antenna and to the memory, the correlator configured to generate at a predetermined data rate interval a plurality of in-phase and quadrature correlations for the received signal; and

a frequency error estimator coupled to the correlator, the frequency error estimator configured to compute a frequency error estimate based upon the plurality of in-phase and quadrature correlations.

15. The global positioning system receiver of claim 14, wherein the correlator further comprises:

a frequency offset generator coupled to the memory, the frequency offset generator configured to generate a plurality of frequency offsets; and

an offset replica data generator coupled to the frequency offset generator, the offset replica data generator configured to generate a plurality of offset prestored data based upon the plurality of frequency offsets applied to the prestored replica data.

16. The global positioning system receiver of claim 14, wherein the frequency error estimator further comprises:

a magnitude calculator configured to calculate magnitude information for each of the plurality of in-phase and quadrature correlations;

a signal magnitude information sampler coupled to the magnitude calculator, the signal magnitude information sampler configured to sample magnitude information from each of the plurality of in-phase and quadrature correlations at a predetermined time;

a frequency error modulation constructor coupled to the memory, the frequency error modulation constructor configured to construct a frequency error modulation representation of the received signal; and

a curve-fitting module coupled to the signal magnitude information sampler and to the frequency error modulation constructor, the curve-fitting module configured to curve-fit the constructed frequency error modulation representation to the sampled magnitude information.

17. The global positioning system receiver of claim 14, further comprising a data synchronizer coupled to the correlator, the data synchronizer configured to align the received signal with the plurality of offset prestored data sets.

18. The global positioning system receiver of claim 14, further comprising:

a frequency error comparator coupled to the frequency error estimator, the frequency error comparator configured to determine whether the frequency error estimate satisfies a predetermined condition.

19. The global positioning system receiver of claim 18, wherein the predetermined condition is based upon a threshold frequency error value.

20. The global positioning system receiver of claim 16, wherein:

the signal magnitude information sampler is further configured to re-sample magnitude information from each of the plurality of in-phase and quadrature correlations at a second predetermined time,

the curve-fitting module is further configured to curve-fit the constructed frequency error modulation representation to the re-sampled magnitude information, and

the frequency error estimator is further configured to compute the frequency error estimate based upon the curve-fitting of the constructed frequency error modulation representation to the sampled signal magnitude information and to the re-sampled signal magnitude information.

21. The global positioning system receiver of claim 16, further comprising:

a signal correlation divider coupled to correlator, the signal correlation divider configured to segment time-wise each of the plurality of in-phase and quadrature correlations into a predetermined number of in-phase and quadrature correlation time-segments; and

a signal magnitude averager coupled to the signal magnitude information sampler, the signal magnitude averager configured to generate an average signal magnitude for each of the plurality of in-phase and quadrature correlations based upon the predetermined number of in-phase and quadrature correlation time-segments;

wherein the signal magnitude information sampler is further configured to re-sample signal magnitude information from each of the predetermined number of in-phase and quadrature correlation time-segments, and

the curve-fitting module is further configured to curve-fit the constructed frequency error modulation representation to the averaged signal magnitudes.

22. The global positioning system receiver of claim 21, wherein each of the predetermined number of in-phase and quadrature correlation time-segments is aligned with a corresponding time segment of the prestored data.